

## REMARKS

Claims 13-23 were examined and reported in the Office Action. Claims 13-20 are rejected. Claims 21-23 are allowed. Claims 13-20 are amended. Claims 13-23 remain.

Applicant requests reconsideration of the application in view of the following remarks.

### I. 35 U.S.C. § 101, Non-Statutory

Claims 13-20 are rejected under 35 U.S.C. §101 because the invention is directed to non-statutory subject matter. Applicant has amended claims 13 and 15-20 to overcome the 35 U.S.C. §101 rejections. In particular, Applicant has included the limitations of “wherein the log likelihood ratio result  $L_k$  is produced by computing a

function  $\sum_{m=0}^{2^y-1} (A_k^{1,m} + B_k^{s(m)}) - \sum_{m=0}^{2^y-1} (A_k^{0,m} + B_k^m)$  by the log likelihood ratio calculator” in claim 13; “wherein the log likelihood ratio result  $L_k$  is produced by computing a

function  $\sum_{m=0}^{2^y-1} (A_k^{1,m} + B_k^{s(m)}) - \sum_{m=0}^{2^y-1} (A_k^{0,m} + B_k^m)$  by a first calculator” in claim 15; “wherein the reverse state metric result  $B_k^m$ , which is  $k^{th}$  reverse state metric with state  $m$ , is

produced by computing a function  $\sum_{j=0}^1 (B_{k+1}^{F(j,m)} + D_{k+1}^{j,f(m)})$  by a second calculator” in claim 16; “wherein the forward state metric result  $A_k^m$ , which is  $k^{th}$  forward state metric with state  $m$ , is produced by computing a function  $\sum_{j=0}^1 (D_k^{j,b(j,m)} + A_{k-1}^{b(j,m)})$  by a second

calculator” in claim 17; “wherein the reverse state metric result  $B_k^m$ , which is  $k^{th}$  reverse state metric with state  $m$ , is produced by computing a function  $\sum_{j=0}^1 (B_{k+1}^{F(j,m)} + D_{k+1}^{j,f(m)})$  by

a second calculator” in claim 18; “wherein the forward state metric result  $A_k^m$ , which is  $k^{th}$  forward state metric with state  $m$ , is produced by computing a function

$\sum_{j=0}^1 (D_k^{j,b(j,m)} + A_{k-1}^{b(j,m)})$  by a second calculator" in claim 19; and "wherein the log

likelihood ratio result  $L_k$  is produced by computing a function  $\sum_{m=0}^{2^v-1} (A_k^{1,m} + B_k^{s(m)}) - \sum_{m=0}^{2^v-1}$

$(A_k^{0,m} + B_k^m)$  by a calculator" in claim 20. These amended limitations are supported in the original specification regarding Figure 4 (see page 24, lines 17-21). As the subject matter of the rejected claims are tied to the calculator, which is a machine, Applicant asserts that the claims are now directed to statutory subject matter.

Accordingly, withdrawal of the 35 U.S.C. §101 rejections for Claims 13-20 are respectfully requested.

## II. Allowable Subject Matter

Applicant notes with appreciation the Examiner's assertion that claims 21-23 are allowed. Applicant further notes with appreciation the Examiner's assertion that claims 13-20 would be allowable if re-written or amended to overcome the 35 U.S.C. §101 rejections. As noted above, Applicant has amended claims 13 and 15-20 to overcome the 35 U.S.C. §101 rejections.

Applicant respectfully asserts that claims 13-23, as it now stands, are allowable for the reasons given above.

**CONCLUSION**

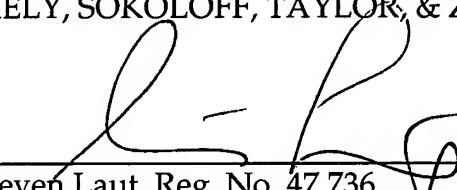
In view of the foregoing, it is submitted that claims 13-23 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

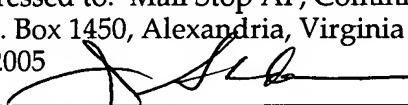
Dated: June 22, 2005

By:   
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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail with sufficient postage in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P. O. Box 1450, Alexandria, Virginia 22313-1450 on June 22, 2005

  
Jean Svoboda